Missouri Assessment Program
Spring 2005

Mathematics

Anchor Pages for Released Items

Grade 8

Use the equation $6x - 3 = y$ to find the value of y when x is equal to -1. In the box below, provide the work that shows how you arrived at your answer and write your answer on the line.

$6x - 3 = y$

$6(-1) - 3 = y$

$-6 - 3 = y$

$-9 = y$

value of y -9

Missouri Operational 2005
Grade 8 Math
ID # 227985321
Session 1-3
Score: 2 Point ANCHOR
Exemplary response. Correct process
Correct answer.

Use the equation $6x - 3 = y$ to find the value of y when x is equal to -1. In the box below, provide the work that shows how you arrived at your answer and write your answer on the line.

$6x - 3 = y$

$(6 \cdot -1) - 3 = y$

$-6 - 3 = -3$

value of $y = -3$

Missouri Operational 2005
Grade 8 Math
ID # 227851355
Session 1-3
Score: 1 Point ANCHOR
Correct process; error in addition of -6 and -3.
Incorrect answer.

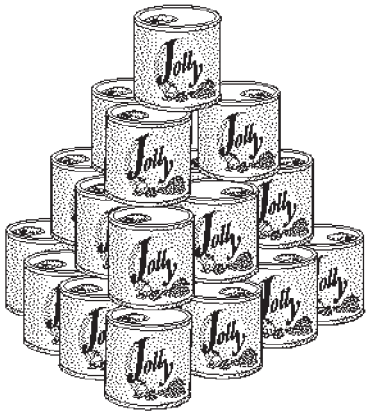
Use the equation $6x - 3 = y$ to find the value of y when x is equal to -1. In the box below, provide the work that shows how you arrived at your answer and write your answer on the line.

$6x-3=y$
$6(-1)=y$
$-5-3=y$
$-2=y$

value of y 2

Missouri Operational 2005
Grade 8 Math
ID # 227850442
Session 1-3
Score: 0 Point ANCHOR
Incorrect process (6x-1 is not 5)
Incorrect answer.

Matt works at a grocery store after school. He needs to stack cans in a triangular pyramid to make a display similar to the picture below.



1 can

3 cans

6 cans

10 cans

Matt needs to stack the cans six layers high. How many cans does Matt need to start with on the bottom layer? In the box below, explain how you arrived at your answer and write your answer on the line.

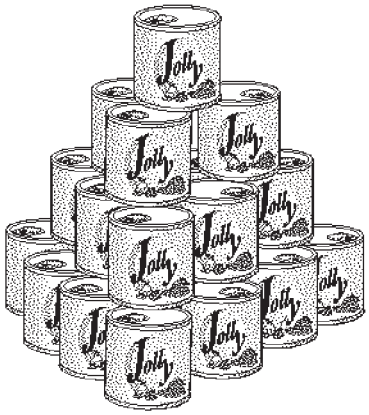
1 > 2
3 > 3
6 > 4
10 > 5
15 > 6
21

Everytime the number inbetween increases 1, so he will need 21 cans.

21 cans

Missouri Math 2005 Operational
Grade 8 ID # 183271473
Session 2
Item 6
Score Point 2 Anchor
Correct answer and correct process

Matt works at a grocery store after school. He needs to stack cans in a triangular pyramid to make a display similar to the picture below.



1 can

3 cans

6 cans

10 cans

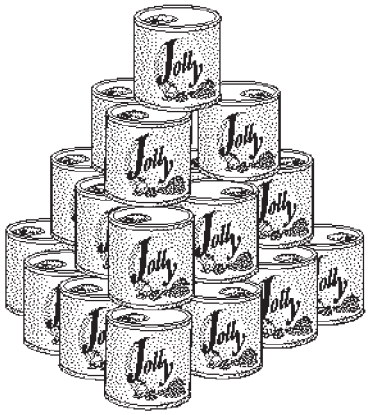
Matt needs to stack the cans six layers high. How many cans does Matt need to start with on the bottom layer? In the box below, explain how you arrived at your answer and write your answer on the line.

Layer 1 = 1
Layer 2 = 3
Layer 3 = 6
Layer 4 = 10
Layer 5 = 15
Layer 6 = 21

21 cans

Missouri Math 2005 Operational
Grade 8 ID # 183271191
Session 2
Item 6
Score Point 1 Anchor
Correct answer (21).
Student does not explain how 15 and 21 are the next two numbers. The pattern has not been established.

Matt works at a grocery store after school. He needs to stack cans in a triangular pyramid to make a display similar to the picture below.



1 can

3 cans

6 cans

10 cans

Matt needs to stack the cans six layers high. How many cans does Matt need to start with on the bottom layer? In the box below, explain how you arrived at your answer and write your answer on the line.

13 - 4 layers
16 - 5 layers
20 - 6 layers

20 cans

Missouri Math 2005 Operational
Grade 8 ID # 183272944
Session 2
Item 6
Score Point 0 Anchor
Incorrect answer and explanation